

CATALOGUE

OF THE

STATE

Agricultural and Mechanical College,

AUBURN,

LEE COUNTY, ALABAMA.



SELMA, ALA. :

PRINTING HOUSE OF JAS. P. ARMSTRONG & CO.

1875.

BOARD OF DIRECTORS.

HON. WM. H. BARNES, PRESIDENT.

HIS EXCELLENCY, GEO. S. HOUSTON, GOVERNOR OF ALABAMA,
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HON. JOHN M. MCKLEROY, SUPERINTENDENT OF PUBLIC IN-
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HON. B. S. BIBB, PRESIDENT OF THE STATE AGRICULTURAL SO-
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FACULTY AND OFFICERS.

1874-75.

REV. I. T. TICHENOR, D. D.,
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Commandant and Professor of Civil Engineering.

J. T. DUNKLIN, A. M.,
Professor of Languages.

WM. C. STUBBS, A. M.,
Professor of Natural Science.

OTIS D. SMITH, A. M.,
Professor of Mathematics.

REV. B. B. ROSS, A. M.,
Professor of Moral Philosophy.

J. H. DRAKE, M. D.,
Surgeon.

E. T. GLENN,
Quartermaster.

WM. C. STUBBS, A. M.,
Secretary of Faculty.

MILITARY ORGANIZATION.

Commandant :

COL. R. A. HARDAWAY.

CADET OFFICERS.

Adjutant :

E. R. RIVERS.

Sergeant-Major :

B. C. LANIER.

Quartermaster Sergeant :

J. E. GILBERT.

Color Bearer :

J. M. TRAMMELL.

COMPANY A.

Captain :

W. M. PERRY.

First Lieutenant :

J. A. RATCHFORD.

Second Lieutenant :

M. K. CLEMENTS.

COMPANY B.

Captain :

P. H. STOW.

First Lieutenant :

F. C. DILLARD.

Second Lieutenant :

F. D. PEABODY.

CATALOGUE OF STUDENTS.

(BY CLASSES AND COURSES.)

Sc. stands for Course in Science · Ag. Agriculture ; C. E. Civil Engineering

FIRST CLASS.

<i>Names.</i>	<i>Residence.</i>
DILLARD, FRANK C., Sc.	Lee Co., Ala.
PERRY, WILLIAM M., Sc.	Columbus, Ga.
RATCHFORD, JOHN A., Sc.	Chambers Co., Ala.
RIVERS, EUGENE R., C. E.	Russell Co., Ala.

SECOND CLASS.

CLEMENTS, MERIT K., Ag.	Clay Co., Ala.
DAVIS, THOMAS F., Ag.	Autauga Co., Ala.
FIGH, JOHN R., C. E.	Montgomery, Ala.
HOLT, SAMUEL B., Ag.	Shelby Co., Ala.
LANIBR. B. CLINTON, Ag.	Madison Co., Ala.
PEABODY, F. DOWNING, Ag.	Lee Co. Ala.
RUFFIN, JAMES E., Ag.	Coosa Co. Ala.
STOW, PERKINS H., C. E.	Opelika, Ala.
WILSON, REESE, Ag.	Lee Co., Ala.

THIRD CLASS.

BURNS, EUGENE D.	Selma, Ala.
BUCHANAN, ABNER M.	Russel Co., Ala.
CLAPP, SEWELL F.	Columbus, Ga.
CLAPP, GEORGE M.	"
DOWDELL, JAMES S.	Auburn, Ala.
GILBERT, JOSEPH E.	Tuscumbia, Ala.
HENDERSON, ORION H.	Auburn, Ala.
* HODGE, COL. T., Ag.	Opelika, Ala.
* LAMPKIN, WILLIAM W.	Auburn, Ala.
OLIVER, ERNEST M.	Tallapoosa Co., Ala.
PHILLIPS, CHARLES S.	Lee Co., Ala.
RIDDLE, SAMUEL C.	New Orleans, La.
*RUTLEDGE, JOHN F.	Auburn, Ala.

* Irregular.

SMITH, WILLIAM P.	"
THACH, CHARLES C.	Athens, Ala.
TRAMMELL, JOHN M.	Chambers Co., Ala,
TRAMMELL, WILLIAM O.	" "
†TOLAND, T. ORLANDO	Talladega Co., Ala.

FOURTH CLASS.

* ABERCROMBIE, JAMES A.	Opelika, Ala.
BOOTH, WILLIAM WILKES	Autauga Co., Ala.
DAWSON, LEMUEL G.	Elmore Co., Ala.
ELAM, JAMES W.	Opelika, Ala.
FRAZER, TUCKER H.	Auburn Ala.
GILCHRIST, ABNER M.	Montgomery Co., Ala.
INGRAM, BENJAMIN F.	Russell Co., Ala,
JOSEPH, CHARLES W.	Montgomery, Ala.
LANIER, I. ALEXANDER.	Madison Co., Ala.
McLAURINE, LEWIS P.	Bullock Co.,
RUSHTON, M. GRAHAM	Montgomery Co., Ala.
RILEY, WILLIAM T.	Mobile, Ala.
SCHIEFFELIN, LEE S.	Baldwin Co., Ala.
SELIG, AARON	Auburn, Ala
STAGGERS, ROBERT J.	Lowndes Co., Ala,
STROUD, JAMES K.	Lee Co., Ala.
THORNTON, R. LOXLA	Tuskegee, Ala,
TOWNSEND, ROBERT N	Limestone Co., Ala.
TYSON, SAMUEL A.	Lowndes Co., Ala.

FIFTH CLASS.

ALDRIDGE, JAMES F.	Lee Co., Ala.
BARNETT, JAMES F.	Auburn, Ala,
BINGHAM, JULIAN H.	Talladega, Ala.
BLAKE, WYATT H.	Randolph Co., Ala.
CRAWFORD, JAMES A.	Coosa Co., Ala.
DAVIS, WALTER G.	Autauga Co., Ala.
DILLARD, F. BARTOW.	Auburn, Ala,
FITZPATRICK, ALVA	Union Springs, Ala.
GLENN, JAMES W.	Auburn, Ala.
GLENN, WALTER R.	"

* Irregular.

† Special course in Languages.

ALABAMA AGRICULTURAL AND MECHANICAL COLLEGE.

GILLESPIE, HUGH H.	Washington, Ga.
HARDIN, ADAM S.	Auburn, Ala.
HARRIS, WILLIAM H.	Washington Co., Ala.
HARRIS, ARTHUR L.	Huntsville, Ala.
HARRIS, LUCIEN M.	Auburn, Ala.
HARVEY, REESE A.	"
HUBBARD, JAMES R.	Opelika, Ala.
HURT, WALTER N.	"
HURT, JAMES M.	Auburn, Ala.
JACKSON, FRANK.	Lauderdale Co., Ala.
JACKSON, WILLIAM N.	Montgomery, Ala.
LAMAR, J. OLIVER	Auburn, Ala.
LAMAR, WILLIAM H.	Lee Co., Ala.
LONG, HENRY T.	" "
PAYNE, HOWARD A.	Auburn, Ala.
PERRY, H. GAITHER	"
PERSON, WILLIAM N.	Tuscumbia, Ala.
PINCKARD, J. OSCAR	Randolph Co., Ala.
PINCKARD, FRANK REX	" "
RAIFORD, E. HODGES	Auburn, Ala.
REESE, JOHN D.	Lowndes Co., Ala.
ROWE, ALEXANDER H.S.	Auburn, Ala.
SAMFORD, CRAWFORD A. L.	"
STEELE, JR. SAMUEL P.	Selma, Ala.
STREET, WILLIAM J. C.	Clay Co., Ala.
STREET, ROBERT Y.	" "
TATE, WILLIAM W.	Elba, Coffee Co., Ala.
ZELLARS, JOHN T.	Lee Co., Ala.

RECAPITULATION.

FIRST CLASS.	4
SECOND CLASS.	9
THIRD CLASS	18
FOURTH CLASS	19
FIFTH CLASS	38
TOTAL	88

TERMS OF ADMISSION.

Candidates for Admission to the Fourth or lowest class of the College course must be fifteen years of age and pass a creditable examination in the following subjects :

Geography ; Arithmetic.

English Grammar, Spelling, Reading and Composition.

Algebra, through Equations of the Second Degree.

History of the United States.

ADDITIONAL FOR THE COURSE IN LITERATURE.

Latin.—Grammar, (Allen & Greenough.)

Lessons, (Leighton) Cæsar, 2 books.

Allen's Selections.

Greek.—Goodwin's Grammar and Leighton's Lessons.

N. B.—There is a great want of preparation in the *elementary branches*, and applicants must hereafter expect to undergo a thorough examination in those subjects. They must be prepared to solve readily practical questions involving Fractions, Common and Decimal, Denominate Numbers, Percentage and Square Root as usually found in our higher School Arithmetics ; to parse and analyse selections from standard English authors, and correct false syntax. They must also have a general knowledge of Geography, especially of the United States.

Students desiring to enter the course in Letters should have a good knowledge of Latin and Greek Grammar.

Special Courses.—Students not candidates for degrees are received in particular departments, if they have received the requisite preparation for the study of the subjects selected.

Boys who are prepared to enter upon the prescribed course of study will be received as students upon application to the President, and the presentation of proper testimonials of moral character.

Applicants will be admitted into any class for which, on examination, they may be found qualified. Pupils whose parents do not desire for them the full course, may be admitted to a partial or selected course; but a study once taken up cannot, without the written request of the parent or guardian, and consent of Faculty, be discontinued until completed.

No one will be admitted who has been expelled or dismissed from any other college.

Satisfactory testimonials of good moral character are in all cases required.

Students, on their arrival, will report immediately to the president, and will enter at once upon their duties. Any one violating this rule will be reported to the Faculty, whose duty it will then become to decide upon the question of his admission or rejection.

Every Cadet, when he enters the College, shall subscribe, in a book to be kept for that purpose, the following matriculation promise: "I hereby engage to serve as a Cadet in the Alabama Agricultural and Mechanical College; and I promise on honor, while I continue a member thereof to obey all legal orders of the constituted authorities of the College, and to discharge all my duties as Cadet with regularity and fidelity."

Every Cadet, upon his entrance into College, will be required to deliver to the Commandant all private arms in his possession.

PRIVILEGED STUDENTS.

The sons of ministers of the gospel in active service, and young men preparing for the ministry, are admitted to all the privileges of the College *free of tuition fees*.

Two Cadets from each county of the State of Alabama, recommended by the County Superintendent, will be received by the Faculty, and their appointments approved by the Board of Directors. They will not be required to pay tuition fees.

Each State Cadet is restricted in his choice of course of study to Agriculture or Engineering. He should be at least fifteen years of age, and should produce testimonials of moral character and preparation such as will insure profit both to the applicant and the College. These testimonials should be addressed to the President, or the Secretary of the Faculty.

Whenever any State Cadet shall fail to report within thirty days after the opening of any term, his place shall be declared vacant, and the County Superintendent notified of the fact, and requested to make a new appointment.

Cadets other than State Cadets and privileged students shall pay annually fifty dollars for instruction; and all shall pay five dollars Surgeon's fee, on entrance, for medical attention during the year.

FIFTH OR PREPARATORY CLASS.

The imperfect preparation in the rudiments which many of the applicants for admission exhibit, renders it necessary to establish a class lower than the fourth class of the regular course.

Students entering this class will be fitted for the fourth class of any course of the College, and will not be advanced to the fourth class until fully qualified for it.

The studies of the fifth class comprise the subjects required for admission to the fourth class. The time necessary to complete the studies of the fifth class will depend on the previous preparation and the progress after entrance. Latin and Greek will be optional with those who are preparing for the course in Science, Engineering or Agriculture.

ORDER OF COURSES.

The College offers the following courses as allowing large freedom of choice, and at the same time indicating a specific degree to be attained in each.—These courses are substantially those of the best schools which propose to impart both scientific and literary education, and agree mainly with those of Michigan, Wisconsin and Missouri. Each, except the agricultural, requires four years for its accomplishment. The agricultural not embracing so much in language as the literary course or so much mathematics as the scientific course, is adjusted to three years. It will be seen on examination that the prominence given to the Natural Sciences, and the practical element associated with all departments of study cannot fail to render the courses especially valuable. Under Agricultural Chemistry will be considered composition of soils, relations of air and moisture to vegetable growth, chemistry of farm processes, methods of improving soils, and various other topics which may be properly treated of under this department. Botany, chemical physics and other departments of science will be studied and taught with spe-

cial reference to their relation to Agriculture and Horticulture.

There are two experimental farms connected with the College—one at Auburn, the other in the valley of the Tennessee near Courtland. Others will be established in different parts of the State, as the wants of the agricultural community may demand, and the means of the College will justify. On these farms experiments in Grasses, Grains, Textile and Forage Plants, Vegetables, modes of Culture, Fertilizers, &c., are now in progress. These experiments will be continued from year to year with such changes as may be deemed desirable either for the instruction of the students or for the promotion of agricultural science.

I. *The Course in Agriculture*, leading to the degree of Bachelor of Agriculture.

This course embraces French, German, Natural Science as related to Agriculture, particularly Botany and Chemistry, Mathematics, with surveying and leveling, Political Economy, lessons in practical agriculture throughout the course.

II. *Course in Literature* — degree Bachelor of Letters.

This course embraces Latin, Greek, a thorough study of English in its linguistic elements and in its literature; philosophic and historical studies, mathematics and natural science; but not to the same extent as required in the courses of Science or Engineering. This course is approximately the same as the usual course in Arts, but is extended in the department of science and in the study of the English language.

III. *Course in Science*, leading to the degree of B. S.

This course is designed for those who wish to study the Natural Sciences, Mathematics, Modern Languages, Latin, Literature, History, Rhetoric, Logic, and Mental and Moral Philosophy, as thoroughly as they are studied in the best Colleges, and who would be glad to enjoy the cultivation and association of college life. The course in Mathematics and Natural Science

is extended. A full course of Chemistry and Mechanics is included, and those desiring to follow any business in life requiring thorough knowledge of Mechanics or Chemistry, and who do not propose a connection with Engineering, would properly select the general Scientific Course. Those who have taken the usual classical course by taking the course in Science, would be qualified as teachers for any department of education furnished by the normal school.

IV. *Course in Civil Engineering*—degree Bachelor of Engineering.

This course extends the scientific course in applied mathematics; embraces full instruction in regard to the construction of common roads, pikes, railroads, bridges, canals, improvements of rivers, harbors, &c.

V. *Course in Surveying*.—Instruction in Surveying is of the most practical character, embracing every variety of field work, with actual use of instruments.

A certificate of *Proficiency in Surveying* will be granted all applicants who stand an *approved* examination in the studies of the Third and Fourth Class in any Course.

ROAD ENGINEERING.

The Senior Class of the Engineering Course is organized as an Engineering Corps, and goes through all the necessary operations for the construction of a railroad from Auburn to some selected terminus.

Preliminary study of maps.

Reconnoissance.

Running Preliminary lines.

Maps and Memoirs of same.

Final Location of Road; Grades and Curves.

Final Maps, showing Longitudinal and Cross Sections, Excavations, &c.

The Field Work and Office Work, including

Drafting and Calculation, are performed under the direction of the Professor. Each step is accompanied by text-book study and lectures. Examinations are made of Engineering works in the vicinity, and written reports upon them (with drafts) are required. Both theory and practice are thoroughly taught.

The work in this Course begins this year with the first collegiate term.

BUILDING AND AGRICULTURE.

Students desiring a partial course may omit a part of the higher Mathematics, Chemistry, and study of languages. The course would consist of Architectural Drawing, equilibrium and stability of structures, arches, trusses, roofs, building material, mortars, &c.

Upon completion of the course, a certificate of proficiency will be given.

POST GRADUATE COURSES AND DEGREES.

The degrees of Bachelor of Letters, Bachelor of Agriculture, Bachelor of Science and Bachelor of Engineering, will be granted only to those who have passed satisfactory examinations on the respective courses. Cadets who remain one year after graduation in Agriculture, Letters, or Science, shall, on the recommendation of the Faculty, be entitled to the degree of Master. And the completion of the post graduate course of one year will entitle the gradu-

ate of Engineering to the degree of Civil Engineer.

Certificates of proficiency may be given a Cadet upon the completion of any department of a course.

All degrees of regular courses must be conferred upon recommendation of the Faculty approved by the Board of Directors.

Bad character or college delinquency of any kind shall be good reason for exclusion from a degree.

Each graduate shall propose and submit to the Faculty a thesis on some subject of immediate relation to the studies of his course.

Applicants for degrees and certificates shall notify the faculty at least six weeks before Commencement.

No Cadet of the College will be admitted to any degree unless he shall have exhibited to the President of the College a certificate from the Treasurer that his College dues are all paid, and shall have performed the exercise assigned him by the Faculty for Commencement.

DECLAMATION, COMPOSITION : ORIGINAL SPEECHES.

Students are required to write one composition each month, and frequently to practice declamation in the College Chapel.

The First and Second Classes deliver three original orations during the year.

COURSE IN AGRICULTURE, FOR THREE YEARS.

FOURTH CLASS—FIRST YEAR.

- † ENGLISH *First Term.*—Composition ; Reading ; History.
Second Term.—Advanced English Grammar.
- * MATHEMATICS, *First Term.*—Algebra ; Plane Geometry.
Second Term.—Plane Geometry ; Plane Trigonometry.
- LANGUAGES. *First and Second Terms.*—† French or ‡ Latin of Fourth Class.
- † NATURAL SCIENCE. *First and Second Terms.*—Physics ; Chemistry ; Botany.
- ‡ AGRICULTURE. *First and Second Terms.*—Elements of Practical Agriculture.
- ‡ DRAWING. *First Term.*—Warren's Plane Problems.
Second Term.—Warren's Drafting Instruments and Operations.
- * MILITARY. *First and Second Terms.*—Drill.

THIRD CLASS.—HALF YEAR.

- † ENGLISH *First Term.*—Rhetoric ; Exercises in Original Composition and Declamation.
- † MATHEMATICS *First Term.*—Solid Geometry ; Mensuration.
- ‡ LANGUAGES *First Term.*—† German or ‡ Latin of Third Class.
- † NATURAL SCIENCE. *First Term.*—Inorganic and Organic Chemistry.
- † AGRICULTURE. *First Term.*—Agricultural Chemistry.
- ‡ GEODESY *First Term.*—Farm Surveying, Practice ; Plane Table Surveying, Theory and Practice ; Use of Field Instruments.
- MILITARY *First Term.*—† Tactics and *Drill.

SECOND CLASS—HALF YEAR.

- † MATHEMATICS *Second Term.*—Mechanics.
- ‡ LANGUAGES *Second Term.*—† German or ‡ Latin of Third Class.

† Two Recitations per week.
 § Four Recitations per week.

† Three Recitations per week.
 * Five Recitations per week.

† ENGLISH	<i>First Term</i> —Criticism ; Oratory ; Classics. <i>Second Term</i> —Original Speeches.
* NATURAL SCIENCE.	<i>First and Second Terms</i> —Descriptive Astronomy, Mineralogy, Geology, Physical Geography, Meteorology.
‡ NATURAL HISTORY	<i>First and Second Terms</i> —History of Domestic Animals ; Insects useful and injurious to vegetation.
* AGRICULTURE	<i>First and Second Terms</i> —Market Gardening ; Fruit Culture ; Floriculture ; Landscape Gardening.
‡ PHILOSOPHY	<i>Second Term</i> —Political Economy.
LAW	Lectures, Titles, Contracts and Accounts.
MILITARY	<i>First and Second Terms</i> —‡Tactics and *Drill; Artillery and Infantry.

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COURSE IN LITERATURE.

FOR FOUR YEARS.

FOURTH CLASS.

- † ENGLISH *First Term*—Composition; Reading; History.
Second Term—Advanced English Grammar.
- * MATHEMATICS *First Term*—Algebra; Plane Geometry.
Second Term—Plane Geometry; Plane Trigonometry.
- ‡ LATIN *First Term*—Virgil (four books of the *Æneid*), with Exercises and Grammar.
Second Term—The same continued; Cicero's Oration.
- † GREEK *First Term*—Two Books of Anabasis; with Goodwin's Greek Grammar.
Second Term—The same continued; Goodwin's Reader.
- † NATURAL SCIENCE *First and Second Terms*.—Physics, Chemistry, Botany.
- * MILITARY *First and Second Terms*.—Drill.

THIRD CLASS.

- ‡ ENGLISH *First Term*.—Rhetoric, Exercises in Original Composition and Declamation.
Second Term.—Milton and English Classics, Composition and Declamation.
- † MATHEMATICS *First Term*.—Solid Geometry, Mensuration.
Second Term.—Analytical Geometry.
- ‡ LATIN *First Term*.—Livy; Latin Exercises.
Second Term.—Horace begun; Allen's Prose Composition.
- † GREEK *First Term*.—Goodwin's Reader, with Grammar and Exercises.
Second Term.—Homer (*Boise*); Prose Composition (*Jones*.)
- † NATURAL SCIENCE *First and Second Terms*—Inorganic and Organic Chemistry.

‡Two Recitations per week.
 §Four Recitations per week.

†Three Recitations per week.
 *Five Recitations per week.

- †GEODESY *First Term*.—Compass and Chain Surveying and Plane Table Surveying, Theory and Practice; use of Field Instruments.
Second Term.—Trigonometrical and Topographical Surveying and Leveling; Theory and Practice.
- *MILITARY *First and Second Terms*.—†Tactics and *Drill.

SECOND CLASS.

- †ENGLISH *First Term*.—Shakespeare.
Second Term.—English and American Literature.
- †MATHEMATICS *First Term*.—Analytical Geometry.
- ‡LATIN *First Term*.—Horace; Prosody; Prose Composition (Allen).
Second Term.—Cicero and Terence.
- †GREEK *First Term*.—Demosthenes' Popular Orations; Prose Composition (Boise).
Second Term.—Prose Composition; Tragedy.
- †PHILOSOPHY *Second Term*.—Logic.
- †NATURAL SCIENCE *First and Second Terms*.—Physics; Mechanics.
- *MILITARY *First and Second Terms*.—†Tactics and Drill.*

FIRST CLASS.

- †ENGLISH *First Term*.—Criticism and Oratory; Classics,
Second Term.—Original Speeches.
- †LANGUAGES *First and Second Terms*.—Latin and Greek, Review.
- *NATURAL SCIENCE *First Term*.—Descriptive Astronomy and Mineralogy.
Second Term.—Geology and Physical Geography.
- *PHILOSOPHY *First Term*.—Mental Philosophy; Evidences of Christianity.
Second Term.—Political Economy; Moral Philosophy.
- *MILITARY *First and Second Terms*.—†Tactics and *Drill, Artillery and Infantry.

†Two Recitations per week.
 §Four Recitations per week.

†Three Recitations per week.
 *Five Recitations per week.

COURSE IN SCIENCE, FOR FOUR YEARS.

FOURTH CLASS.

- †ENGLISH *First Term.*—Composition ; Reading ; History.
Second Term.—Advanced English Grammar.
- *MATHEMATICS *First Term.*—Algebra ; Plane Geometry.
Second Term.—Plane Geometry ; Plane Trigonometry.
- ‡LANGUAGES *First and Second Terms.* — ‡French or ‡Latin of Fourth Class.
- †NATURAL SCIENCE *First and Second Terms.*—Physics ; Chemistry ; Botany.
- †DRAWING *First Term.*—Warren's Plane Problems.
Second Term.—Warren's Drafting Instruments and Operations.
- *MILITARY *First and Second Terms.*—Drill.

THIRD CLASS.

- †ENGLISH *First Term.*—Rhetoric ; Exercises in Original Composition and Declamation.
Second Term.—Milton and English Classics ; Composition and Declamation.
- †MATHEMATICS *First Term.*—Solid Geometry ; Mensuration.
Second Term.—Analytical Geometry.
- ‡LANGUAGES *First and Second Terms.*—‡German or ‡Latin of Third Class.
- †NATURAL SCIENCE *First and Second Terms.*—Inorganic and Organic Chemistry.
- †GEODESY *First Term.*—Compass and Chain Surveying, and Plane Table Surveying, Theory and Practice ; use of Field Instruments.
Second Term.—Trigonometrical and Topographical Surveying and Leveling, Theory and Practice.
- †DRAWING *First and Second Terms.*—Topographical Drawing ; Machine Drawing.
- * MILITARY *First and Second Terms.*—†Tactics and *Drill.

‡Two Recitations per week.
 ‡Four Recitations per week.

†Three Recitations per week.
 *Five Recitations per week.

SECOND CLASS.

- †ENGLISH *First Term.*—Shakspeare.
Second Term.—English and American Literature.
- †MATHEMATICS *First Term.*—Analytical Geometry and Calculus.
Second Term.—Calculus.
- †NATURAL SCIENCE . . *First Term.*—Advanced Physics.
Second Term.—Mechanics.
- *CHEMISTRY *First and Second Terms.*—Qualitative and Quantitative Analysis.
- †PHILOSOPHY *Second Term.*—Logic.
- *MILITARY *First and Second Terms.*—†Tactics and *Drill.

FIRST CLASS.

- †ENGLISH *First Term.*—Criticism and Oratory ; Classics.
Second Term.—Original Speeches.
- *NATURAL SCIENCE . . *First Term.*—Descriptive Astronomy and Mineralogy.
Second Term.—Geology, Physical Geography and Meteorology.
- †LABORATORY *First and Second Terms.*—Work in Laboratory.
- *PHILOSOPHY *First Term.*—Mental Philosophy ; Evidences of Christianity.
Second Term.—Political Economy; Moral Philosophy.
- *MILITARY *First and Second Terms.*—†Tactics and Drill ; *Artillery and Infantry.

†Two Recitations per week.
 §Four Recitations per week.

†Three Recitations per week.
 *Five Recitations per week.

COURSE IN ENGINEERING, FOR FOUR YEARS.

FOURTH CLASS.

- †ENGLISH *First Term.*—Composition ; Reading ; History.
Second Term.—Advanced English Grammar.
- *MATHEMATICS *First Term.*—Algebra ; Plane Geometry.
Second Term.—Plane Geometry ; Plane Trigonometry.
- ‡LANGUAGES *First and Second Terms.*—‡French or ‡Latin of Fourth Class.
- †NATURAL SCIENCE *First and Second Terms.*—Physics ; Chemistry ; Botany.
- ‡DRAWING *First Term.*—Warren's Plane Problems.
Second Term.—Warren's Drafting Instruments and Operations.
- *MILITARY *First and Second Terms.*—Drill.

THIRD CLASS.

- †ENGLISH *First Term.*—Rhetoric ; Exercises in Original Composition and Declamation.
Second Term.—Milton and English Classics ; Composition and Declamation.
- †MATHEMATICS *First Term.*—Solid Geometry ; Mensuration.
Second Term.—Analytical Geometry.
- ‡LANGUAGES *First and Second Terms.*—‡German or Latin of Third Class.
- †NATURAL SCIENCE *First and Second Terms.*—Inorganic and Organic Chemistry.
- ‡GEODESY *First Term.*—Compass and Chain Surveying and Plane Table Surveying, Theory and Practice ; use of Field Instruments.
Second Term.—Trigonometrical and Topographical Surveying and Leveling, Theory and Practice.
- ‡DRAWING *First and Second Terms.*—Topographical Drawing ; Machine Drawing.
- *MILITARY *First and Second Terms.*—*Drill and ‡Tactics.

‡Two Recitations per week.
 §Four Recitations per week.

†Three Recitations per week.
 *Five Recitations per week.

SECOND CLASS.

- †ENGLISH *First Term.*—Shakespeare.
Second Term.—English and American Literature.
- †MATHEMATICS *First Term.*—Analytical Geometry and Calculus.
Second Term.—Calculus.
- †NATURAL SCIENCE . . . *First Term.*—Advanced Physics.
Second Term.—Mechanics.
- †GEODESY *First Term.*—Hydrographical, Topographical, and
 Town Surveying; Theory and Practice.
Second Term.—Line Surveying; Common Roads;
 Railroads; Canals; Tunnels; Staking-out for
 Construction.
- †DRAWING *First and Second Terms.*—Bridge Drawing.
Second Term.—Sketches of Tools, of the Compo-
 nent Parts of Machines, and of Bridges and other
 structures.
- *MILITARY *First and Second Terms.*—†Tactics and *Drill.

FIRST CLASS.

- †MATHEMATICS *First and Second Terms.*—Spherical Trigonome-
 try and Astronomy.
- *NATURAL SCIENCE . . . *First and Second Terms.*—Descriptive Astronomy,
 Mineralogy, Geology, Physical Geography, Me-
 teorology,
- *CIVIL ENGINEERING . . *First and Second Terms.*—Building Materials;
 Mortars and Cements; Masonry; Wood and
 Metals; Strength of Materials; Arches; Fra-
 ming; Bridge and Road Making; Mining.
- *TOPOGRAPHICAL . . . *First and Second Terms.*—Plans, Profiles, and Sec-
 tions of Railroad Surveys.
- *MILITARY *First and Second Terms.*—†Tactics and *Drill. Ar-
 tillery and Infantry.

†Two Recitations per week.
 §Four Recitations per week.

†Three Recitations per week.
 *Five Recitations per week.

TEXT BOOKS.

FIFTH CLASS.

Arithmetic, Robinson's Elementary Algebra, Swinton's Word Analysis, Hart's Composition, Goodrich's Sixth Reader, Payson, Dunton & Scribner's Penmanship, Paterson's Speller and Analyzer.

FOURTH CLASS.

Robinson's University Algebra, Geometry, Davies' Legendre (new edition), Davies' Trigonometry, Anderson's History of England, Fowler's English Grammar, * Schmitz Student's Classical Atlas. *French*—Fasquelle's French Course, Fasquelle's Colloquial Reader, Chrestomathie Francaise, Surrenne's Dictionary, Warren's Plane Problems, Warren's Drafting Instrument, Stewart's Elementary Physics, Eliot & Storer's Manual of Chemistry, Gray's School and Field Botany, Upton's Infantry Tactics.

THIRD CLASS.

Geometry, Davies Legendre, Loomis' Analytical Geometry (new edition), Smith's Topography, Warren's Projections, Davies' Surveying and Mensuration, Bloxam's Chemistry with Lectures, How Crops Grow, Worman's German Grammar, Worman's German Echo, Schiller's Wilhelm Tell, Adler's German Dictionary, Hart's Composition and Rhetoric, Selections from English Authors, U. S. Army Regulations.

SECOND CLASS.

Loomis' Analytical Geometry (new edition), Differential Calculus (new edition), Olmsted's College Philosophy (Snell's), How Crops Grow, How Crops Feed, Caldwell's Agricultural Analysis, Gillespie's Higher Surveying, Smith's Linear Perspective, Henck's Field Book, Craik's English of Shakespeare, Shaw's History of English Literature, Logic, Coppee, Welcker's Military Lessons.

FIRST CLASS.

Loomis' Integral Calculus, Mahan's Engineering, Mahan's Industrial Drawing, Lockyer's Astronomy, Dana's Mineralogy, Dana's Geology, Maury's Physical Geography, Trench's Study of Words, Carpenter's English of the Fourteenth Century, Guizot's History of Civilization, Porter's Intellectual Science, Wayland's Political Economy, Calderwood's Moral Philosophy, U. S. Artillery Tactics.

REFERENCE BOOKS.

Fresenius Qualitative and Quantitative Analysis, Plattner's Blow Pipe Analysis.

* For the rest of Latin and Greek Text Books, see Course in Literature

DEPARTMENT OF MILITARY SCIENCE AND TACTICS.

By the act of Congress for the endowment of Agricultural and Mechanical Colleges, in prescribing the required studies, the words, "*including* military tactics," are used. The act is designed to be faithfully carried out, by imparting to each student, not physically incapacitated to bear arms, practical instruction in the school of the soldier, of the company, and the battalion. The duties of guards, outpost and picket service are practically taught. The College is provided, by the State, with a complete set of breach-loading cadet rifles, swords and accoutrements.

The following uniform has been prescribed for dress, viz: Frock of Cadet gray, one row of College buttons; grey pants and forage cap, trimmings black. A very neat and serviceable dress suit can be obtained here for \$25, and a fatigue suit for \$18—sufficient, with proper care, for one year's service. This is less expensive than the usual clothing. All students are required to wear this uniform at all times during the term. In attendance upon drills and guard, students lose no time from academic duties.

The drills are short, and the military duty involves no hardship. The military drill is a health-giving exercise, and its good effects in the development of the *physique* and improvement of the carriage of the cadet, is manifest.

The entire body of students is divided into companies. The officers are selected for proficiency in

drill and deportment. Each company is officered by one Captain, one First Lieutenant, one Second Lieutenant, with a proper number of Sergeants and Corporals. The officers and non-commissioned officers are distinguished by appropriate insignia of rank. These appointments are conferred by the commandant of Cadets as honorary distinctions, and are continuous for the Collegiate year unless forfeited by misconduct.

Cadet-officers are regarded as *assistants in the enforcement of discipline*; their orders are to be considered as duly authorized, and to be obeyed accordingly. They are expected to set examples of military deportment and general good conduct to other Cadets. Cadet-officers, squad-marchers and sentries are required, under pain of being themselves reported delinquent, to report all *facts* of delinquency falling under their notice in the performance of their duties. It is made the especial duty of every non-commissioned officer to report lateness, disorder in ranks, and all infractions of rules falling under his notice while on duty with his company, guard, or other detachment.

No Cadet, or other person, shall be questioned in any way on account of reports rendered by him, nor shall he hold any conversation relating to it with the Cadet reported.

Appointments and promotions in Corps are honorable distinctions for military proficiency and good conduct.

Promotions will take place in the order of original appointment only when efficiency, fidelity, progress in studies, conduct and other qualifications warrant them.

Every officer, commissioned and non-commissioned,

upon appointment or promotion, is required to pledge himself to a faithful discharge of his official duties.

Every Cadet to whom arms and accoutrements are issued, will be held strictly accountable, not only for their preservation, but for their perfect good order at all times.

The prescribed dress will be strictly adhered to, nor will the slightest deviation be allowed. The wearing of fancy cravats, fancy caps, etc., will not be tolerated upon any pretense whatever. Hair will be worn short, and whiskers and moustaches not allowed.

SESSION RECORDS.

Daily records of the various exercises of the classes are kept by the officers of instruction in a form adapted to permanent preservation. These are returnable weekly through the office of the Commandant to the President, and give full information with regard to each student's position, both as respects observed characteristics of general conduct, and the knowledge displayed by him of the current subjects of study. From this record a circular or *monthly* statement is sent to the parent or guardian.

EXAMINATIONS.

There shall be a written or oral examination on the studies passed over, at the end of each term.

A Cadet found *deficient* in progress will not be advanced to the next class; and if found so on account of neglect of studies, he shall be dismissed.

At the annual examination, a *general merit roll*, or classification of students, according to their standing in studies and conduct, will be arranged, by taking the average of all the numbers expressing the monthly merit in the several studies of the year,

and in conduct, together with the merit marked by Professors and Board of Trustees, on the scale of 0 to 100, at the examination.

A general yearly average of 75 (the maximum mark being 100) in scholarship will be required to pass a student from any class to the next higher, and if a mark less than 65 is attained in any study, he shall, in addition, be required to pass another examination in that study at the beginning of the ensuing session, before being allowed to pass up.

If any student shall fall below 75 in his average of merit marks in study, he shall be declared *deficient* in progress.

For a student's graduating standing, that of the last year will be averaged with those of the previous years in his Collegiate course.

It is particularly required that every student who enters the College shall remain through the examination at the end of the term. Leave of absence and honorable discharges will, therefore, not be granted within six weeks of the examination, except in extreme cases.

Examinations for Degrees or Certificates of Proficiency are held at such time as may be selected by the Faculty, usually during the last *four weeks* of the last term, and embrace in their scope the entire subjects of study in the course.

GOVERNMENT.

As military science and tactics are required to be taught in this Institution, both by law of Congress and by act of the State Legislature, the Government and discipline will be modeled after that of the best military schools. But military science is not made a leading object of the Course, since it is not the aim

of this College to make proficient in arms, but simply to teach to all students the tactics, and even these more as a means of discipline and gymnastic exercise than as preparatory to the profession of the soldier. The government of the College, therefore, is administered by the President, Commandant, and Faculty, in accordance with a Code of Laws and Regulations enacted by the Faculty and published; each student, upon matriculating, being furnished with a copy.

The strictest attention to study, and the most exact punctuality in attendance on recitations, and all other duties, will be made the *condition* of every student's continuance at the College; and any student who without authority absents himself from recitation or any other duty, deserts his class, or refuses to attend when warned, shall be dismissed, or less severely punished, at the discretion of the Faculty.

Students are prohibited, under penalty of dismissal, from having in their possession ammunition, weapons or arms not issued for the performance of military duty; nor shall these be retained loaded in quarters under any pretext.

Students are prohibited entering into combinations under whatever pretext. One who shall begin, excite, cause or join in any boisterous or riotous conduct, or become a party to any agreement to avoid or violate any regulation, to hold no intercourse with a comrade, or to do any act to the prejudice of good order and military discipline, shall be dismissed.

No student shall have in his possession, or play at, cards, or games of chance, engage in a raffle, or in any manner wager money or other things, on penalty of dismissal.

Permission to attend private parties, or places of public amusement, will not be granted during the term.

No Cadet can be granted a leave of absence more than five times during a term of twenty weeks.

A student who shall drink, or bring, or cause to be brought within the Cadet's limits, or have in his room, tent, or otherwise in his possession, any fermented or intoxicating liquor, or fruits or viands preserved in intoxicating liquor, shall be dismissed.

A student who shall cut, mark, or otherwise injure or deface the buildings, furniture or appurtenances; the trees, shrubbery, green-sward, grounds, fences; stables, or out-houses; or who shall lose, injure destroy, or improperly dispose of the arms, accoutrements, or other property of the College, shall make good all damage, and be dismissed, or otherwise punished, according to the nature of the offence.

A student who is discharged, dismissed or suspended, must leave the College grounds immediately. Should he continue to wear the uniform, the fact that he is no longer a member of the College may be published.

Any student who shall overstay a leave of absence, must produce satisfactory evidence of his having been detained by sickness, by his parent or guardian, or by some unavoidable cause, otherwise he will be dismissed, or otherwise punished.

Day scholars detained at home from any cause must render written excuse, approved by parent guardian or physician, setting forth substantial reasons satisfactory to the Commandant, for the detention, otherwise their reports will not be excused.

To each recorded delinquency a number of from one to ten proportional to the degree of the offence

in a moral and military view, is assigned to express demerit.

If any student receives 150 demerits for the whole or any part of a half-year, or 250 for a greater period, he shall be declared deficient and dismissed.

RELIGIOUS AND MORAL CULTURE.

Religious services are held every morning in the Chapel.

The students are required to attend these exercises, and are expected to attend the Church of their choice at least once on Sunday. Opportunities are also offered for attending Bible classes every Sunday.

By statute of the State, the sale of spirituous liquors and the keeping of gaming-saloons of every kind within five miles of Auburn are forbidden.

The College will be carefully preserved from the control or domination of any party or sect in religion or politics.

LOCATION :—BUILDING.

The College is situated in the town of Auburn, 60 miles from Montgomery, directly on the line of the Western Railroad.

The region is *high* and *healthful*, 850 feet above tide water, being more elevated than Montgomery by 700 feet, or than Talladega or Birmingham by 300 feet.

The building is large and commodious, and is well furnished with rooms for College use.

APPARATUS, CABINET AND MUSEUM.

The apparatus, both chemical and philosophical, is already extensive, and additions will be made thereto. The Cabinet of Minerals is very comprehensive. The Museum is small, but contains many rare and wonderful specimens. It, too, is receiving an addition. Natural Science, in all its branches, receives particular attention, and every facility in the way of experiment and illustration is offered to the student.

☛ We earnestly request the citizens of the State to forward to the Professor of Mineralogy and Geology any specimens which may be useful in the geological study of Alabama.

By a recent act of the Legislature, appointing a State Geologist, it is made imperative upon him to furnish this Institution a full suit of all the minerals of the State, thus giving a prospective increase to our already valuable cabinet, and by which the Geology of Alabama may be fully illustrated.

INDUSTRIAL MUSEUM.

We have also established an Industrial Museum, for the deposit of Machines, Implements, Models, or Plans of same, or of Bridges, etc., which may be entrusted to our care, either for examination or exhibition; and we earnestly request the citizens of all portions of the country to aid us in building up this newly established department.

A full set of DRAWING MODELS has been added the present year.

A set of TELEGRAPHIC APPARATUS, communicating with the offices and professors' rooms, and affording every facility for students to obtain a practical knowledge of Telegraphy, is in daily use in the College.

SOCIETIES.

There are two Literary Societies connected with the College, viz: the Wirt, and the Websterian Society. Weekly exercises are held by each society. Each has a commodious hall, handsomely fitted up, a library of standard and miscellaneous works and a reading room.

SOCIETY OF ALUMNI.

The Annual Alumni Oration, by a member of the Society, is delivered in the Chapel Tuesday evening of Commencement week.

ACADEMIC YEAR.

The Academic year, which is divided into two equal terms, commences on the last Wednesday in September and ends on the last Wednesday in June following. The second term begins on the second Wednesday in February.

EXPENSES.

Tuition for the Academic year (<i>one-half in advance each term</i>).....	\$50 00
Surgeon's Fee (<i>on entrance</i>) for medical attention.....	5 00
Board per month (extra fuel, lights, washing).....	\$12 00 to 16 00
For clothing (<i>in advance</i>).....	35 00

BOARDING.

Hereafter students, after selecting their boarding-houses, with the approval of the Faculty, will not be permitted to make changes without *first* obtaining permission from the Faculty.

Applications will be granted only on good and sufficient reasons, or at the *written* request of the parent or guardian.

The Faculty will feel authorized to remove students from boarding-houses, when it becomes manifest that they are failing in their duties from improper associations, or for any other reason demanding such removal.

Parents and guardians are advised to send all money for payment of tuition and board to the Treasurer of the College, with instructions for its appropriation.

STUDENTS' FURNISHING.

Drawing-Instruments.—The instruments used at the College are the Swiss, which are preferred both for their general excellence and moderate cost. The instruments, with the materials for geometrical and topographical drawing, cost from fifteen to thirty-five dollars. The student is advised to defer his purchases of drawing-instruments and materials until he comes to the College, when he will have the advantage of procuring them under the direction of the Professor of Drawing.

BOOKS AND DOCUMENTS RECEIVED SINCE LAST REPORT.

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.. .. Florida.....	1
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